



THIS REPORT CONTAINS ASSESSMENTS OF COMMODITY AND TRADE ISSUES MADE BY  
USDA STAFF AND NOT NECESSARILY STATEMENTS OF OFFICIAL U.S. GOVERNMENT  
POLICY

Required Report - public distribution

**Date:** 7/6/2010

**GAIN Report Number:** MO1006

## **Morocco**

### **Biotechnology - GE Plants and Animals**

#### **2010 Biotechnology - GE Plants and Animals**

**Approved By:**

Hassan F. Ahmed, U.S. Embassy, Rabat

**Prepared By:**

Hassan F. Ahmed, U.S. Embassy, Rabat

**Report Highlights:**

New legislation regarding the introduction, use, and marketing of GMO that was submitted by the Moroccan Ministry of Agriculture and cleared by pertinent ministries for legislative approval has been returned to the Ministry of Agriculture for revision and further discussion. FAS continues to work with Moroccan institutions to build their biotechnology research capacity.

## **Section I. Executive Summary:**

Biotechnology products are tolerated in Morocco although officially banned, but the issue remains very sensitive politically. Morocco's proximity to the EU results in high dependence on the EU as a market for Moroccan agricultural exports and also results in many restrictive and fearful EU perceptions of biotechnology being shared by Moroccans. Imports of biotechnology seeds are prohibited and a "GMO-free" certificate is required for customs clearance. Certificates provided by breeders and unofficial bodies are accepted.

A draft law regarding introduction, use, and marketing of GMO was sent by the Ministry of Agriculture to other pertinent ministries in 2008. Upon agreement on the content among the ministries, the law was then sent to the Secretary General of the Government (SGG) for legislative approval. The latter made some observations and sent the law back to the Ministry of Agriculture for revision and further discussion. Meanwhile, a National Biosafety Committee (NBC) has been officially formed.

In Morocco, while still avoiding raising the issues publicly to prevent any potential restrictive regulation, several programs have been carried out to educate and increase biotechnology acceptance among decision makers. FAS continues to maintain close relations with government officials handling biotechnology issues to avoid potential trade disturbance. U.S. government programs such as the Science Fellowship Program, Cochran and Borlaug are used to promote Moroccan scientists' knowledge about biotechnology and set the stage for a wider acceptance among regulators.

FAS Rabat has been working with Moroccan institutions to build their biotechnology research capacity. Three researchers from the National Agronomic Research Institute (INRA) participated in 2008 in biotechnology trainings under the Norman Borlaug program at three different U.S. Universities. Their research dealt with various subjects that included the identification and cloning of a gene involved in Plant-parasitic weed interaction; improving knowledge in wheat genetic transformation, bio-safety and molecular characterization of genetically transformed plants; and Agro bacterium transformation on legumes.

## **Section II. Plant Biotechnology Trade and Production:**

### **U.S. Trade Interest in Morocco**

In 2009, according to Moroccan trade data, Morocco imported a total of \$4,347 million worth of agricultural, food, beverages, and tobacco products, while its exports were estimated at about \$3,242. Morocco has very close economic and trade relations with the EU, especially France, because of geographic proximity. Due to their proximity and established trade relations, EU countries control about 40 percent of Morocco's agricultural and food import market and accounts for over 60 percent of Moroccan agricultural exports (mostly fresh fruits and vegetables). By comparison, only about 4 percent of Morocco's exports go to the United States (for the most part olives, olive oil, anchovies, capers, processed tomatoes, occasionally Clementines, and essential oils).

According to U.S. trade data, Moroccan agricultural and food imports from the U.S. totaled \$ 526 million in 2008 and are estimated to be about \$ 497 million (CIF) in 2009. Bulk commodities and intermediary products account for over 95 percent of U.S agricultural products exported to Morocco. Major U.S. agricultural exports to Morocco include soybeans and products, corn, corn products, and wheat (soft and durum), and planting seeds. South American countries such as Argentina and Brazil are also major suppliers of corn and soybeans

and products to Morocco.

### **Section III. Plant Biotechnology Policy:**

#### **Current Legal Status**

Morocco still does not have a legislative or regulatory framework related to biotechnology, either for domestic production or for imports of biotech commodities. A draft of law regarding the introduction, use, and marketing of GMO was sent by the Ministry of Agriculture for review to various ministries (Health, and others) in 2008. Upon agreement on the content of the law among the ministries involved, the law was then sent to the Secretary General of the Government (SGG) for legislative approval. The SGG made some observations and sent the law draft back to the Ministry of Agriculture for an overall review and further discussion among relevant government agencies.

#### **Background and Current Situation**

An internal memorandum drafted in August 1999 is the legal foundation on which the Ministry of Agriculture rests its claim that GMO products are officially banned from Morocco. This two paragraphs memo, signed by subordinates from Ministry of Agriculture, was issued at a time when various food safety and health related issues were dominating headlines in Europe (GMO, BSE, Dioxin, FMD, etc.). It imposes a blanket prohibition on imports of biotechnology products and includes no details on the product coverage, certification, testing, or threshold levels.

The memorandum, not widely disseminated, remained basically on standby until September 2000 and January 2001 when it was used by the Agadir port PPQ inspectors (a port that was not used to handle regularly corn imports) to stop two corn shipments. The shipments were then released and since then, to our knowledge, the memo has not been invoked to challenge imports of corn or soybeans in Moroccan port. Ministry officials informally indicated at that time that the 1999 memo was intended for imports of processed food with GMO ingredients, and not for animal feeds. In fact, an ad hoc committee from several ministries met in July 2001 to discuss GMO corn import and, evidently, took no preventative action. Since the beginning of 2001, Morocco imported in total over 10.7 MMT of corn (about 4.7 MMT from the United States) and 3.2 MMT of soybeans (1.44 MMT from the United States) with no noteworthy incidents.

This memo raised a significant concern among importers because of the uncertainties of its implementation. The memo could have been used at any time or sporadically and added significant risk for traders. However, this fear has faded since for many years now, it has not surfaced. The AgOffice has explored with the Ministry of Agriculture possible ways to rescind this 1999 memo. However, the possible outcomes if forcing the issues spills into a public debate on biotechnology are clearly less desirable than quietly ignoring the existence of an un-enforced internal memorandum.

Imports of planting seeds with biotech events are not allowed into Morocco. In addition to the 1999 memo that can be used to ban GMO planting seeds imports, the mandatory registration of any new planting seeds before the Ministry of Agriculture will reveal its biotech provenance and therefore the new varieties will not be approved. However, to our knowledge no U.S. seed exporters have tried to register biotech seeds. During the last two years (2007 and 2008), Morocco imported some \$85 million worth of planting seeds with nearly 90 percent from Europe. The United States accounted for 4.0 percent of the market and exported mostly planting seeds for vegetables, watermelon, alfalfa, and fodders.

#### **The Pending Legislation**

In 2008, the Ministry drafted several pieces of legislation to codify the legal position of biotechnology. This proposed law was cleared by various ministries and submitted to the SGG for approval. After making observations on the proposed law, the SGG sent the draft back to the Ministry of Agriculture. The real content of this law remains unknown to the large public.

### **Government Entity in Charge**

The Ministry of Agriculture has been designated by the Prime Minister's Office as the Secretariat for the National Biosafety Committee.

### **National Biosafety Committee (NBC)**

In April 2005, the Prime Minister authorized the formal constitution of National Bio-safety Committee (NBC). The NBC, purely advisory in nature, will be in charge of GMO issues in the area of agriculture and food industry.

The NBC will provide counseling as to the use, handling, transportation, import, distribution and marketing of genetically modified organisms and will provide the government with suggestions regarding:

- The national policy regarding the genetically modified organisms.
- Emergency actions to take to protect against potential danger from using biotechnology.
- The legal and organizational measures related to the biosafety
- Research programs and conditions of use of genetically modified organisms including the necessary isolation measures for protection from the hazards related to research on genetically modified organisms
- Keep up with scientific advancements in the field of bio-safety both nationally and abroad.

The NBC is chaired by the Prime Minister or his representative and includes:

- Ministry of Agriculture and Fisheries
- Ministry of Health
- Ministry of Higher Education and Scientific Research
- Ministry of Environment
- Ministry of Islamic Affairs
- Ministry of Foreign Affairs
- Ministry of Interior
- Ministry of Justice
- Ministry of Finance
- Ministry of Commerce and Industry
- Minister of Foreign Trade
- Ministry of Water and Forestry

Different parties designated by the Prime Minister from the civil society and the private sector that have interest in the field of environment and consumer protection and belong to the sectors of production and marketing of genetically modified organism products and their derivatives could also include could also siege in the NBC.

The Committee can request, for counseling purposes, the attendance of scientists and legal experts from the public and private sector, human and animal health, plant health, environment, and law.

The NBC convenes twice a year (October and March) and, if requested by the chairman, in extraordinary sessions.

The NBC will be assisted by subcommittees that can study special scientific issues, private law issues, or any

subject related to bio-safety.

### **Concern about the EU**

Generally, Moroccans tend to be far more exposed to European (French) positions than to U.S. positions on many issues. Political sensitivities in Europe (including in food safety such as GMO, Dioxin, BSE, and FMD) tend to regularly spillover to Morocco due to the close historical ties to Europe (formerly a French Protectorate).

Morocco's biggest challenge in biotechnology is the perceived risk that acceptance of biotechnology may negatively affect demand in the EU for Moroccan agricultural exports, especially fruits and vegetables. The leading agricultural exporting groups in Morocco (through which many of the new technologies made their way to Moroccan farms) who would also be the best potential user of biotech seeds (vegetables) are sensitive to the GMO issues and reflect the concerns of their European customers. European customers and consumer groups requested on several occasions from their Moroccan suppliers that the exported product be GMO free (vegetable oil in canned sardines, "GMO free" tomatoes, etc.).

The Government of Morocco recently announced that, seed imported under the Temporary Admission Regime (imported to produce crops locally and process them for re-export) must be "GMO Free". This decision clearly aims to reduce EU importers' fear of GMO products and officially claim that Morocco does not accept GMO seeds.

### **Labeling Issues**

GMO labeling is not required but for products that are used directly for human consumption (especially canned corn) importers print "GMO Free" on the label to avoid being asked to provide a "GMO-Free" certificate. A product labeled "contains GMO" is unlikely to clear customs.

### **Protocols**

The Cartagena Protocol on Biosafety was signed by Morocco in May 2000. The protocol has not been ratified and no timeframe has been set by the government for ratification.

## **Section IV. Plant Biotechnology Marketing Issues:**

### **Positions on Biotechnology within Morocco**

**A. Research Community:** Although there is relatively a well-developed biotechnology research in Morocco in various universities, the area of developing transgenic plants has not yet been tapped. Currently biotechnology research includes areas such as tissue culture, vaccine production, fermentation, gene markers, etc. The interest in the technology in the research community is great. The National Agronomic Research Institute (INRA) actively seeks solutions through biotechnology for widely used crops specific to Morocco such as developing faba bean resistance to orobanche (broomrape), resistance of date palms to Fusarium, and eventually developing drought resistant wheat.

**B. Society at Large:** The average educated Moroccan consumer tends to get most of the information about biotechnology from the local Arabic and French newspapers but also from the widely accessible European

(French) and middle-eastern satellite broadcasted TV channels. There is very little exposure to English channels including U.S. channels. Sporadically, written articles on “GMOs” are published locally by non-specialized journalist and newspapers and tend to be negative and reflect concerns and fears raised by European media.

**C. Free Trade Agreement:** There is a risk that, if aggressively pushed, the biotechnology products might be perceived by the local consumers as a direct result of the FTA with the United States which would be against the United States general policy to promote the free trade in Morocco.

**D. Consumer Organization:** There are about 10 identified consumer associations in Morocco and most are relatively inactive. To our knowledge, none of these organizations have expressed explicitly and specifically their position about biotechnology issues. The leading consumers associations should be targeted on the medium term to be educated about the benefit and the actual, realistic, risks of biotechnology. Regular Spillovers from the EU media tend to provide negative perceptions about biotechnology to leaders of consumer associations.

**E. Local Food and Feed Industry:** Unless the local food processing companies are involved in exports to Europe and they have to fulfill the traceability requirements, the concern about use of biotechnology ingredients is believed to be small as long as the issue is not raised in public. If the issue becomes public, there is a good chance that the government and the food processors will be forced to take measures to reassure the consumer. While currently tolerated by the government, products of biotech crops (corn starch, soya flour, etc.) will likely not be admitted for food use if explicitly labeled as “containing GMOs”.

**F. Government Positions:** The government as a whole is still in the process of forming its position on biotechnology. The Ministry of Agriculture, which has the benefit of a number of U.S.-educated scientists, including at high levels, has the most experience with the subject, is most aware of the potential gain for Morocco, and therefore has the highest level of comfort. The Ministry of Agriculture is appreciative and realistic of Morocco’s dependence on agricultural imports. The Ministry of Environment has responsibility for biodiversity and therefore is another key Ministry in decisions affecting biotechnology. In this Ministry, as well as in the Ministry of Health and in the Ministry of Higher Education and Research, there are individual scientists who understand the value of the technology, but the GOM position is not yet officially formed. Although biotechnology products have been widely consumed in Morocco (corn and soybeans), the issue remains politically sensitive. Most government officials prefer to deal with biotechnology in non-public ways in order to avoid triggering reactions of EU customers or become a target for local journalists.

## **Section V. Plant Biotechnology Capacity Building and Outreach:**

### **USDA Programs**

FAS office has an over all strategy to support local interest in biotechnology by enabling dialog between US and Moroccan regulators and scientists and by keeping the Moroccan scientific community informed of developments in biotechnology. While the government avoids confronting the issue, because of the sensitivities with the EU, we believe that Morocco will be in a better position to eventually reach sound public policy regarding biotechnology if it is fully informed of the benefits biotechnology can provide to its agricultural sector. Ag Attaché office will continue promoting exposure and increased familiarity of Moroccan regulators and scientists with biotechnology.

### **Cochran Program**

The Cochran program has been used to increase the knowledge of key government officials about use and acceptance of biotechnology in the United States. Program was also used to take a multi-disciplinary team from several ministries (Agriculture, Environment, Human Health, and High Education and Scientific Research) to the United States to meet with key officials in APHIS, EPA, FDA, Universities, Farmer's Organizations, U.S. Trade Organization, and go through the approval process and the use, distribution, and acceptance of the biotechnology products.

A regional biotechnology meeting to which key contacts from the Agricultural Research Institute in Morocco (INRA) and the Ministry of Agricultural Division in charge of biotechnology was hosted in February 2006 by FAS. The meeting laid the groundwork for an increased cooperation between scientists in the region.

### **Norman E. Borlaug Fellowship program**

The Borlaug program is being used by FAS to provide promising scientists with an opportunity to spend about 5 weeks in the United States and work one-on-one with a U.S. scientist in their fields. Participants will learn new research techniques, gain exposure to the latest scientific developments in various fields of agriculture, access fully equipped laboratories and libraries, and learn about unique public-private partnerships that help fund agricultural research and science. The program will provide the opportunity for scientists and policymakers to establish long-term contacts with U.S. scientists and apply the newly gained knowledge from U.S. laboratories to their research and development programs.

Under this program, three researchers from INRA participated in 2008 in biotechnology trainings at three different American Universities. The first researcher went to the University of Virginia Tech to study the identification and cloning of gene involved in Plant-parasitic weed interaction. The second one went to Michigan State University to improve knowledge in wheat genetic transformation, biosafety and molecular characterization of genetic transformed plants. The third researcher went to Iowa State University to start working on Agro bacterium-mediated transformation on legumes. (Faba bean and chickpea). The Borlaug program will also provide the opportunity to establish long term collaboration with US and Moroccan scientists.

### **State Department Embassy Science Fellowship Program**

This program brought, in 2007, a research scientist from the United States to Morocco to work with INRA in its biotechnology laboratory in Rabat. The Science Fellow from North Carolina State University provided an opportunity for the Moroccan INRA scientists to learn from the US experience, gain insights into scientific techniques trends in the United States and to establish long-term contacts with a US university.

### **Country Specific Needs**

Taking into account the sensitivity of the "GMO" topic in Morocco, USDA should maintain a low profile and continue working to promote biotechnology between scientist and increasing the understanding and acceptance of biotechnology among opinion leaders in various Ministries. Most Moroccan scientists view biotechnology as "just another technique" that needs to be mastered and thus offer the best way to promote science-based position on biotechnology. Key government officials need to be educated and informed about the potential development and use of biotechnology products in Morocco.

### **Strategy for the Future**

During the last years, the Ag Office has worked closely with the GOM – via seminars, Cochran and Borlaug training and individual meetings – to help it prepare a trade-friendly regulatory approach to biotechnology. So far, our efforts have been successful in preventing hasty trade-restrictive measures, and are yielding a cadre of well-informed officials who are gradually developing a position based on science and taking into account commercial realities.

In the future, the Ag Office intends to build on these past efforts: to enhance Moroccan research capabilities and strengthen regional cooperation; to further develop expertise among the various Ministries involved in biotechnology, and to maintain close personal contacts to help the GOM as it develops its regulatory system.